

Appl. No. 09/745,536
Amdt. Dated August 6, 2004
Reply to Office action of May 12, 2004
Attorney Docket No. P12872-US1
EUS/J/P/04-3184

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 34. (Canceled)
35. (New) A method of dynamically changing priority of a data packet in a virtual local area network (VLAN), the method comprising the steps of:
 - receiving the data packet in a VLAN aware device;
 - examining a plurality of attributes of the data packet;
 - analyzing network traffic load;
 - utilizing a set of rules of reclassification that are predetermined according to one or more of the plurality of attributes;
 - applying a predetermined set of weighting factors against the plurality of attributes and the network traffic load; and
 - determining a priority queue for the data packet, based on the plurality of attributes and the network traffic load.
36. (New) The method of claim 35, wherein the plurality of attributes comprise port, type of service, protocol and priority.
37. (New) The method of claim 35, wherein the set of rules of reclassification depends on specific values of one or more of the attributes.
38. (New) The method of claim 35, further comprising the step of reclassifying the data packet in a priority queue reclassifier according to the predetermined set of rules of reclassification in conjunction with the weighting factors.

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39. (New) The method of claim 38, further comprising the step of dynamically moving the data packet from a queue having one priority to a queue having a different priority.

40. (New) The method of claim 38, further comprising the step of maintaining the priority queue of the data packet.

41. (New) An apparatus for dynamically changing priority of a data packet in a virtual local area network (VLAN), the method comprising the steps of:
a VLAN aware device for receiving the data packet;
means for examining a plurality of attributes of the data packet;
means for analyzing network traffic load;
means for utilizing a set of rules of reclassification that are predetermined according to one or more of the plurality of attributes;
means for applying a predetermined set of weighting factors against the plurality of attributes and the network traffic load; and
means for determining a priority queue for the data packet, based on the plurality of attributes and the network traffic load.

42. (New) The apparatus of claim 41, wherein the plurality of attributes comprise port, type of service, protocol and priority.

43. (New) The apparatus of claim 41, wherein the set of rules of reclassification depends on specific values of one or more of the attributes.

44. (New) The apparatus of claim 41, further comprising a priority queue reclassifier for reclassifying the data packet according to the predetermined set of rules of reclassification in conjunction with the weighting factors.

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45. (New) The apparatus of claim 44, further comprising means for moving the data packet from a queue having one priority to a queue having a different priority.

46. (New) The apparatus of claim 44, further comprising means for maintaining the priority queue of the data packet.

47. (New) A computer program product within a computer usable medium for dynamically changing priority of a data packet in a virtual local area network (VLAN), comprising:

instructions within the computer usable medium for receiving the data packet in a VLAN aware device;

instructions within the computer usable medium for examining a plurality of attributes of the data packet;

instructions within the computer usable medium for analyzing network traffic load;

instructions within the computer usable medium for utilizing a set of rules of reclassification that are predetermined according to one or more of the plurality of attributes;

instructions within the computer usable medium for applying a predetermined set of weighting factors against the plurality of attributes and the network traffic load; and

instructions within the computer usable medium for determining a priority queue for the data packet, based on the plurality of attributes and the network traffic load.

48. (New) The computer program product of claim 47, wherein the plurality of attributes comprise port, type of service, protocol and priority.

49. (New) The computer program product of claim 47, wherein a set of rules of reclassification depends on specific values of one or more of the attributes.

50. (New) The computer program product of claim 47, further comprising instructions within the computer usable medium for reclassifying the data packet in a

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priority queue reclassifier according to the predetermined set of rules of reclassification in conjunction with the weighting factors.

51. (New) The computer program product of claim 50, further comprising instructions within the computer usable medium for dynamically moving the data packet from a queue having one priority to a queue having a different priority.

52. (New) The computer program product of claim 50, further comprising instructions within the computer usable medium for maintaining the original priority queue of the data packet.